

FIG. 1

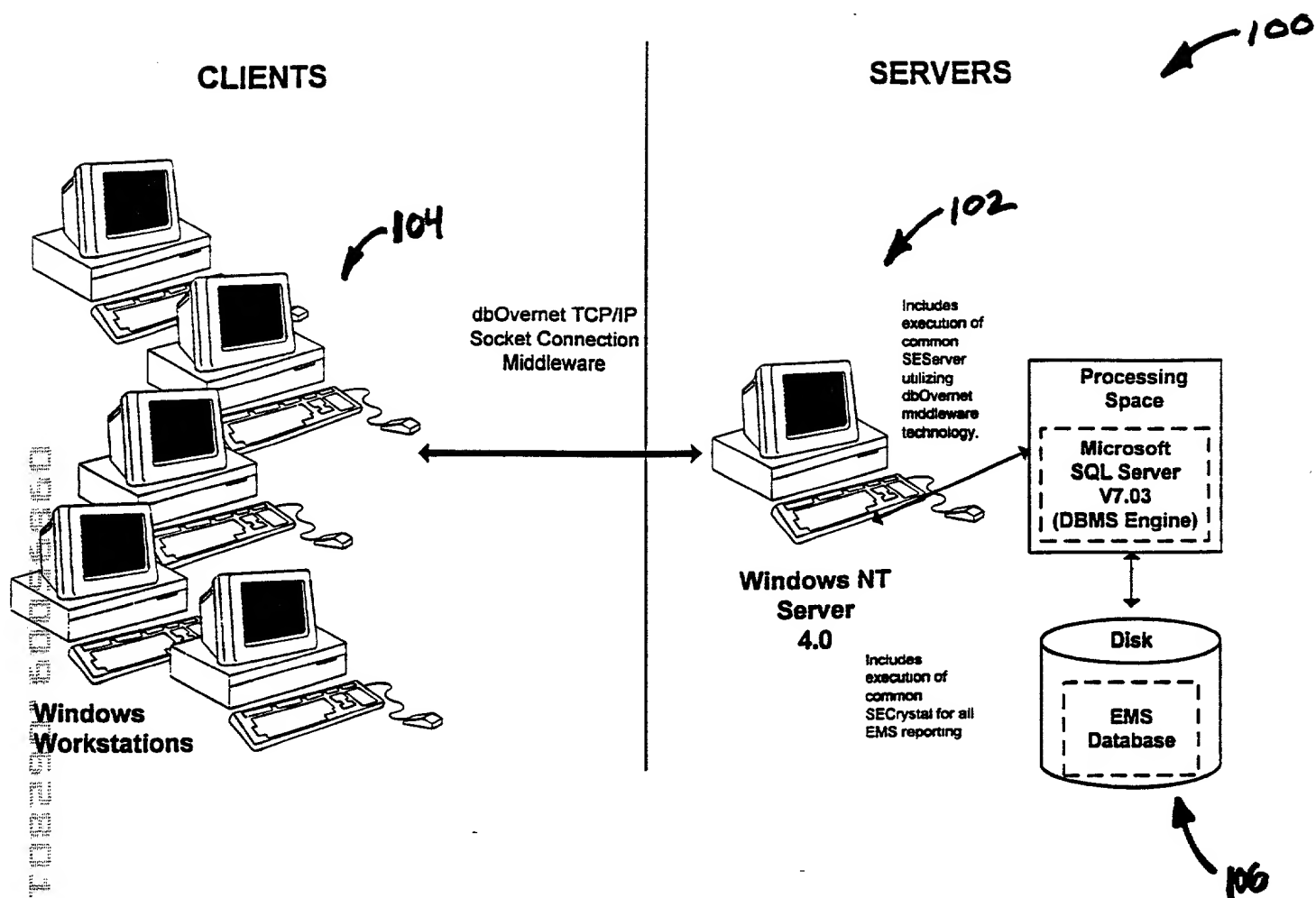


FIG. 2

Companies Subject Area (ERD)

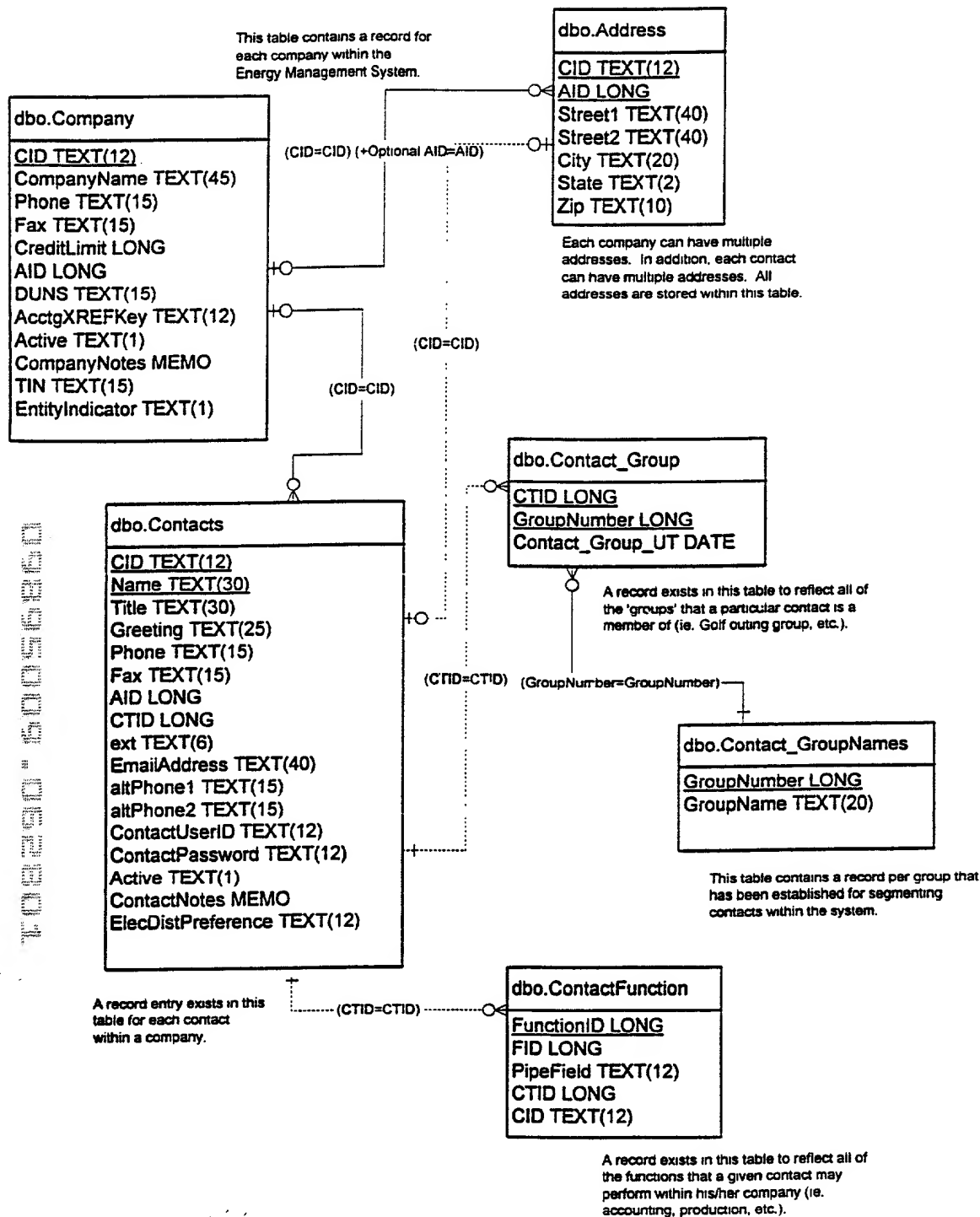


FIG. 3A

Contracts Subject Area (ERD)

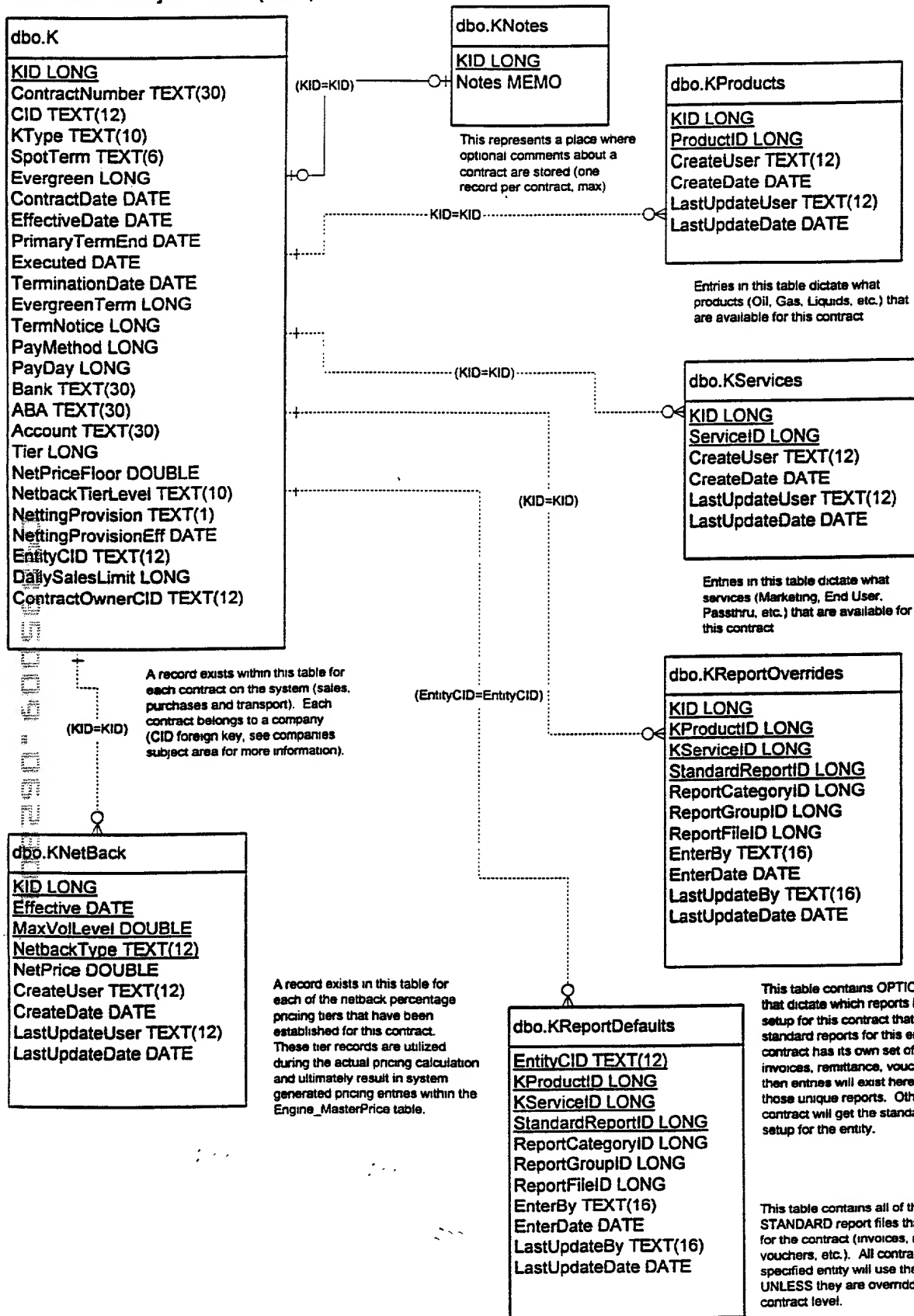
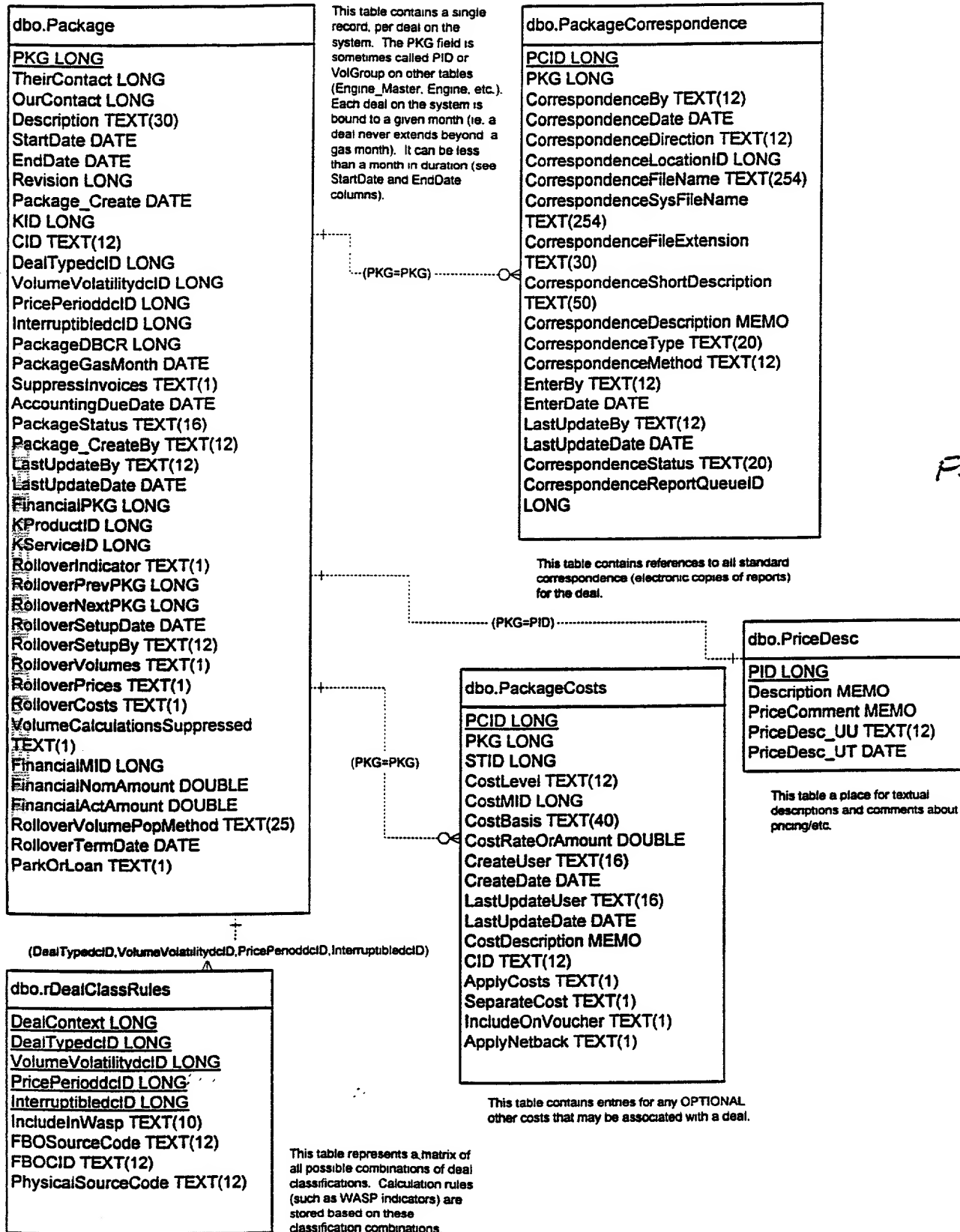


FIG. 38

Deals Subject Area (ERD) (1 of 2)



Deals Subject Area (ERD) (2 of 2)

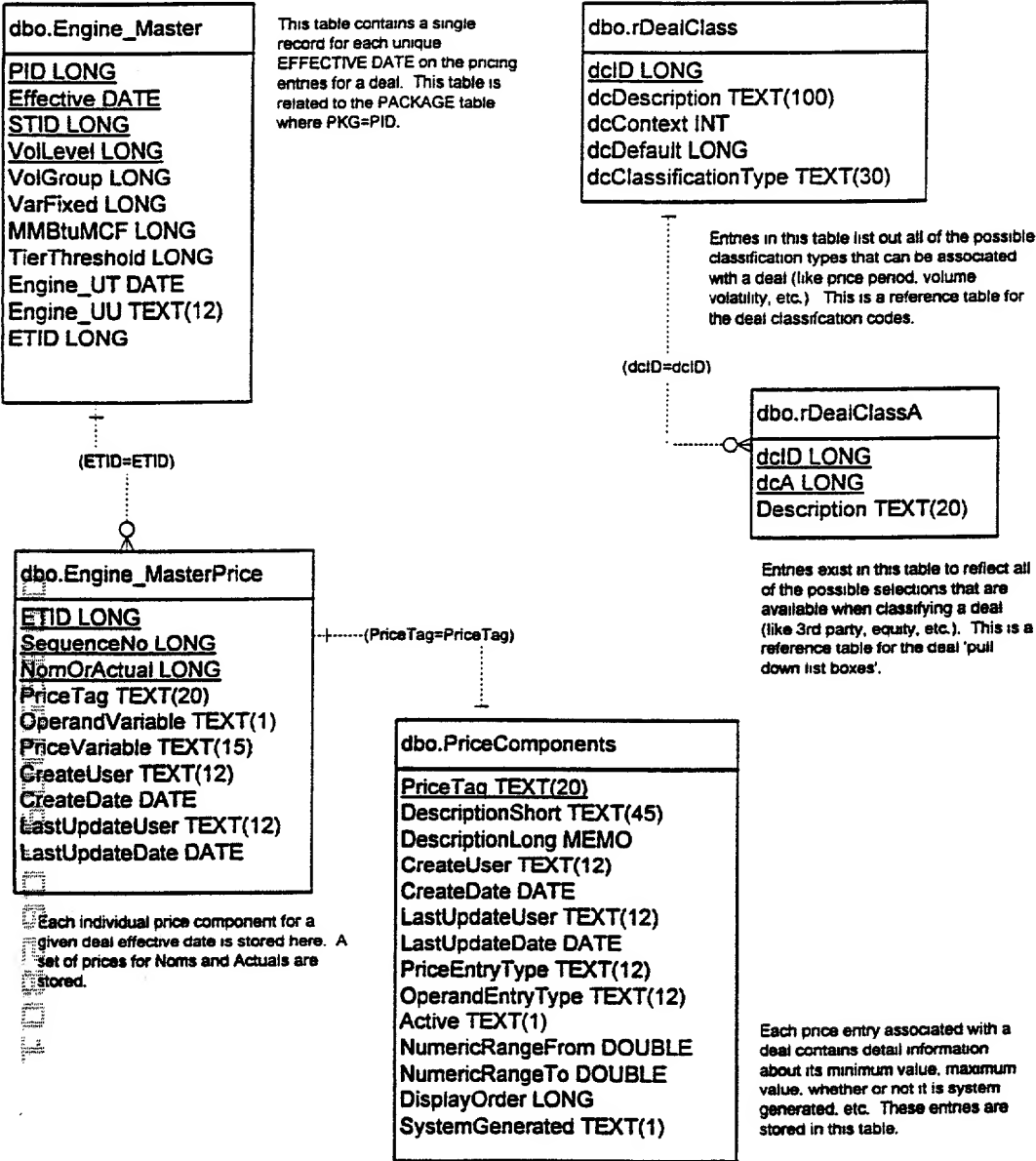


FIG. 3D

Gas Inventory Subject Area (ERD) (1 of 2)

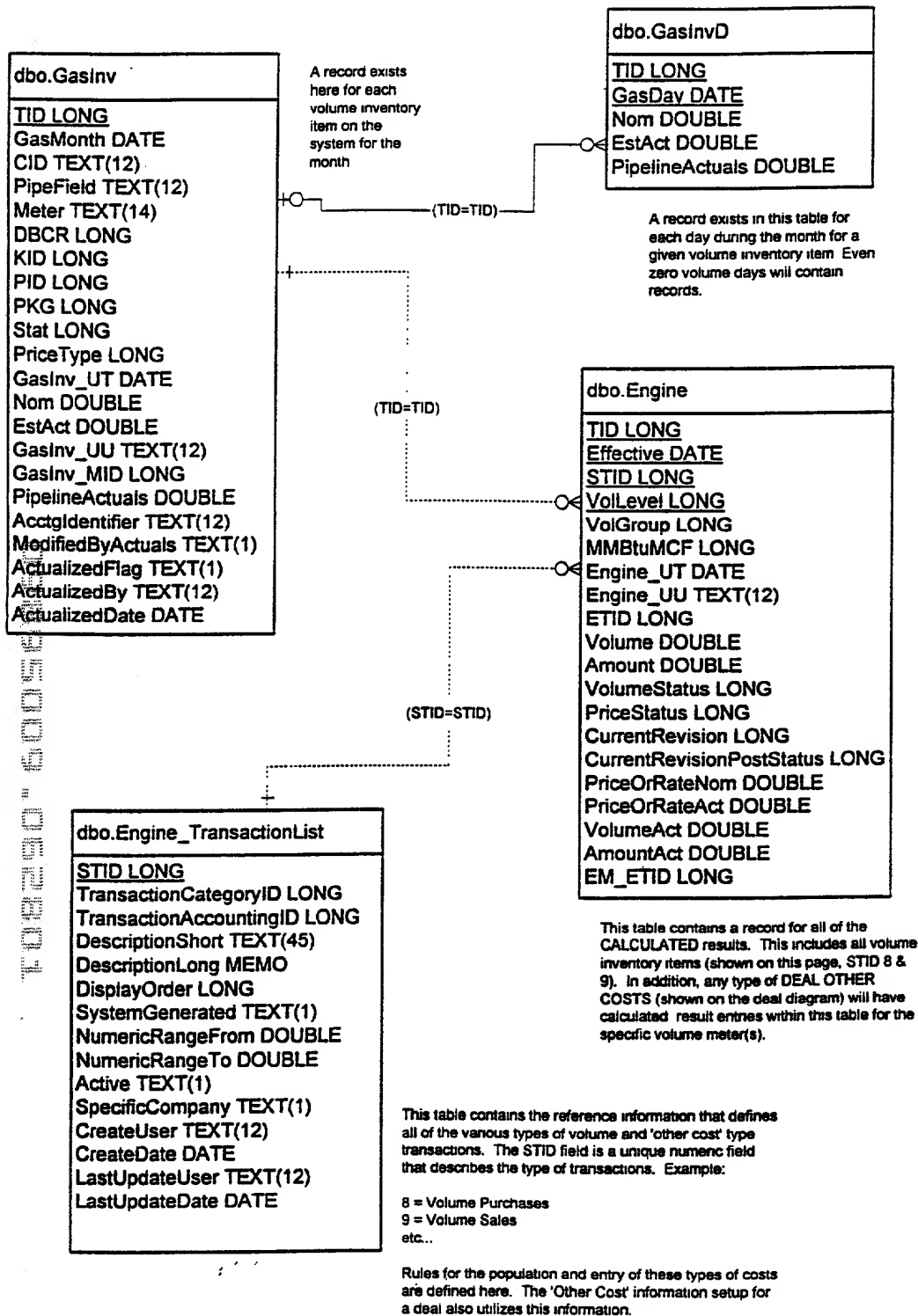


FIG. 3E

Gas Inventory Subject Area (ERD) (2 of 2)

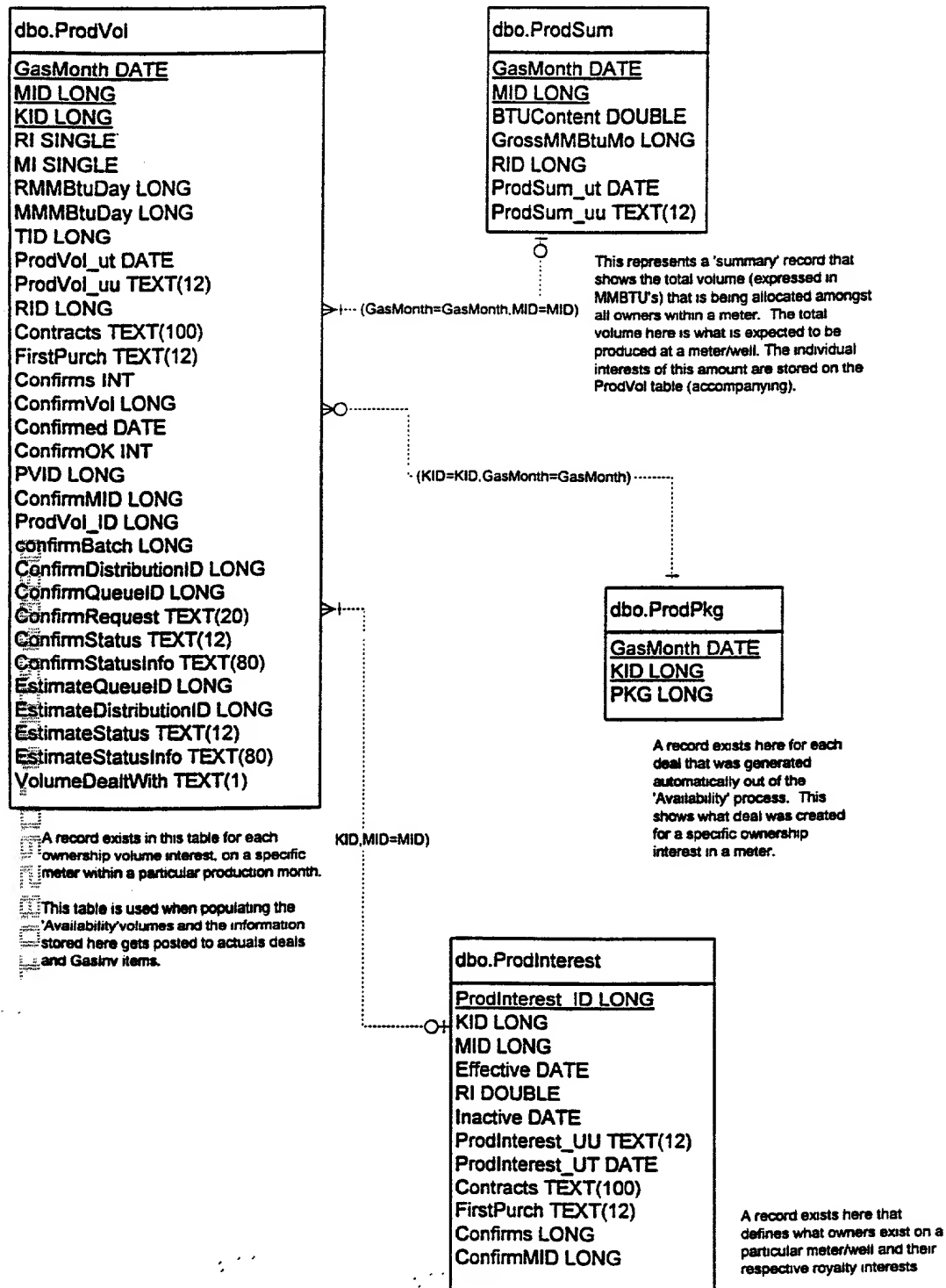


FIG. 3F

Operational Subject Area – 1 of 4 (ERD)

dbo.PrinterDef

PrinterNumber LONG
 DisplayName TEXT(80)
 ServerPrinterName TEXT(80)
 InternalPrinter TEXT(1)

All printers defined in the system are stored in this table.

dbo.ApplicationMessages

ApplicationMessageID LONG
 ApplicationMessageDate DATE
 ApplicationMessageText TEXT(255)

This table contains application messages that normally only print to the server console (for example when a calculation is running the messages are written here).

dbo.ExceptionCategories

ExceptionType TEXT(12)
ExceptionNo LONG
 ExceptionShort TEXT(45)
 ExceptionLong MEMO
 CreateUser TEXT(12)
 CreateDate DATE
 LastUpdateUser TEXT(12)
 LastUpdateDate DATE
 ExceptionOrder LONG

This table contains record entries for all of the possible exception reason categories defined within the system. These reasons are based on the type of exception that occurs ('Deal', 'Pricing', etc.).

dbo.LogTable

LogEntry LONG
 LogDateTime DATE
 LogInfo TEXT(254)

This table is used primarily for debugging purposes and is not utilized by any screen or reporting process.

dbo.ExceptionList

ExceptionListID LONG
 ExceptionType TEXT(12)
 ExceptionKey LONG
 ExceptionDate DATE
 ExceptionSequence LONG
 ExceptionEvent TEXT(45)
 ExceptionNo LONG
 ExceptionBy TEXT(12)
 ExceptionComments MEMO
 CreateUser TEXT(12)
 CreateDate DATE
 LastUpdateUser TEXT(12)
 LastUpdateDate DATE

This table contains the actual exception event entries. The ExceptionKey and sequence columns associate the exception to the entity based on type (ie. PKGID would be the key for ExceptionType = 'DEAL').

dbo.rGasMonth

GasMonth DATE
 CurrentStatus TEXT(20)
 CurrentSequence LONG
 CreateUser TEXT(12)
 CreateDate DATE
 LastUpdateUser TEXT(12)
 LastUpdateDate DATE
 LockedUser TEXT(12)
 LockedDate DATE

One record exists in this table for every production month in the system. In addition, this table contains the CURRENT status field ('Availability', 'Sales', etc.).

dbo.rGasMonthStatus

GasMonth DATE
CurrentSequence LONG
 Status TEXT(20)
 CreateUser TEXT(12)
 CreateDate DATE
 LastUpdateUser TEXT(12)
 LastUpdateDate DATE

This table represents an 'audit' table that captures the production month information EVERYTIME the status is changed. This provides for detail analysis on how long production months are left in a particular status.

(GasMonth=GasMonth)

FSC, 3G

Operational Subject Area – 2 of 4 (ERD)

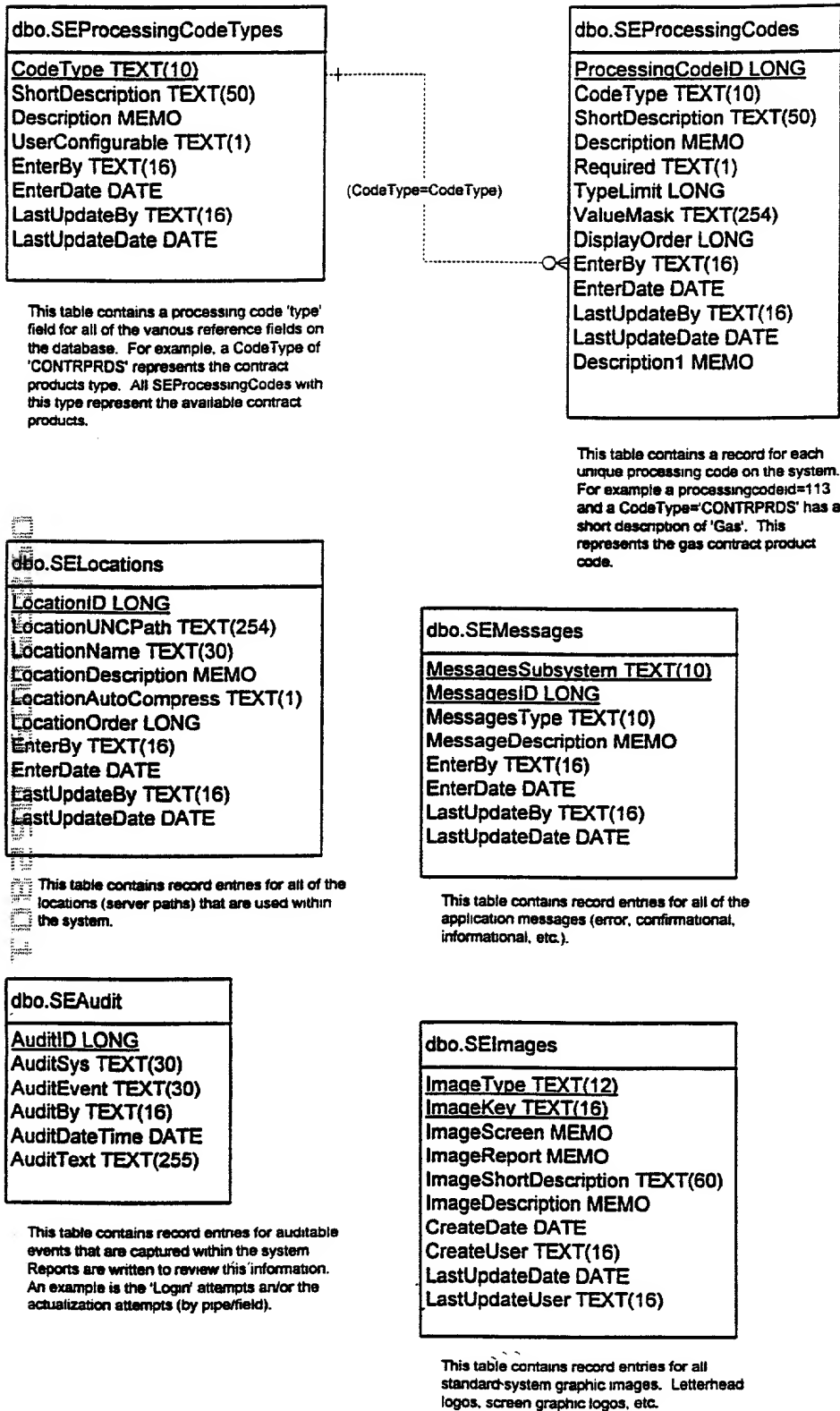


FIG. 3 it

Operational Subject Area – 3 of 4 (ERD)

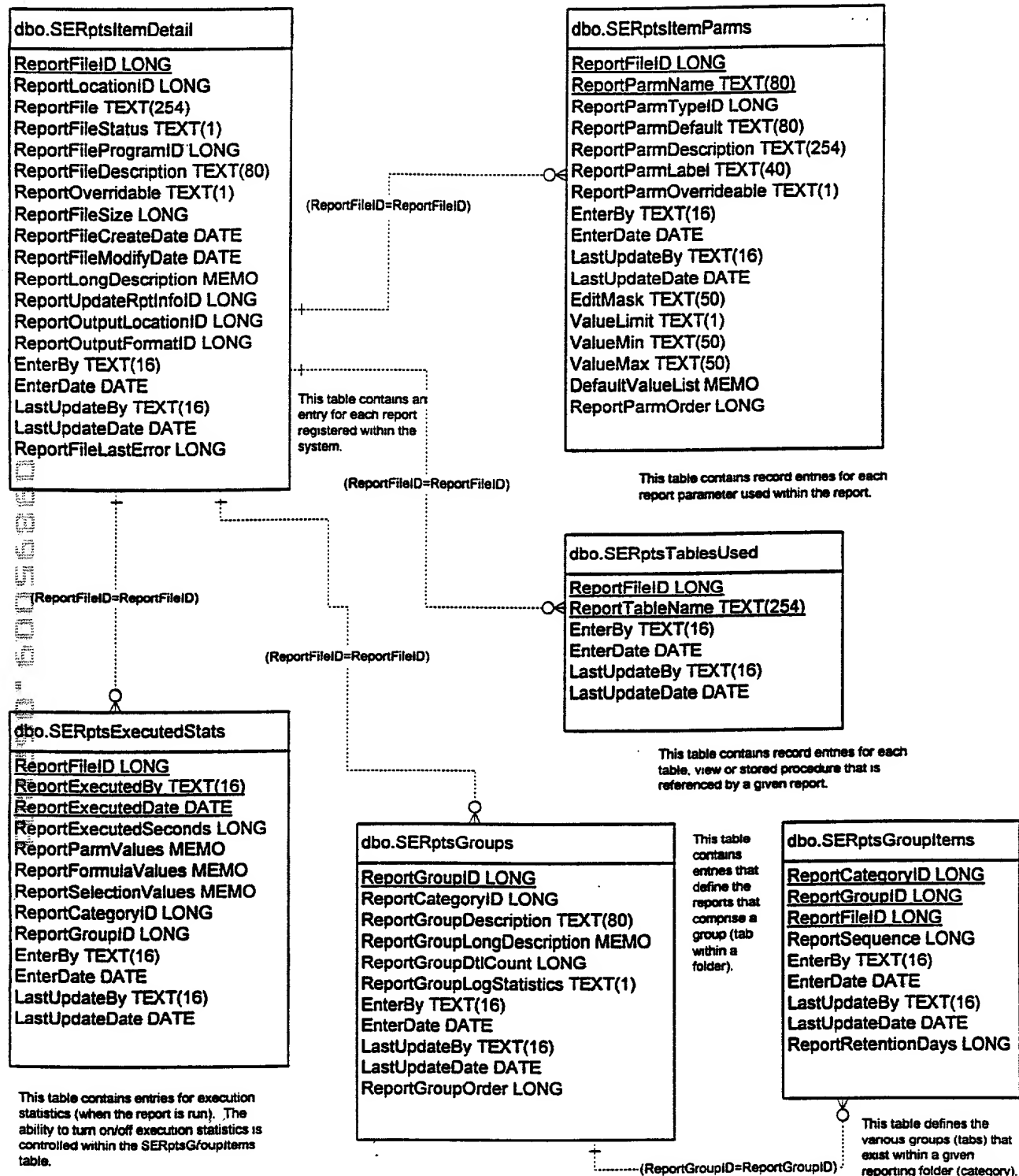


FIG. 32

Operational Subject Area – 4 of 4 (ERD)

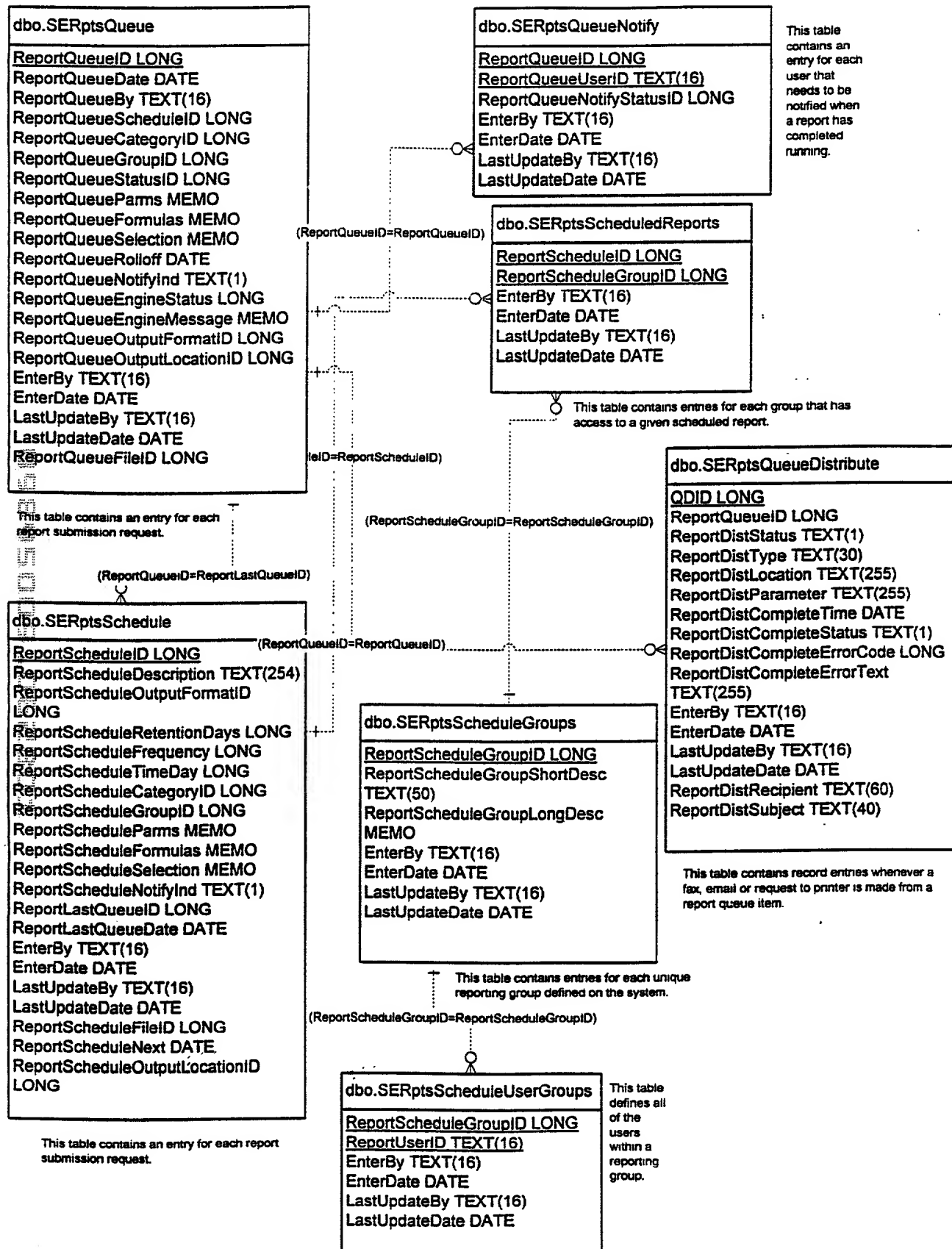


Fig. 3.5

Pipes & Meters Subject Area (ERD)

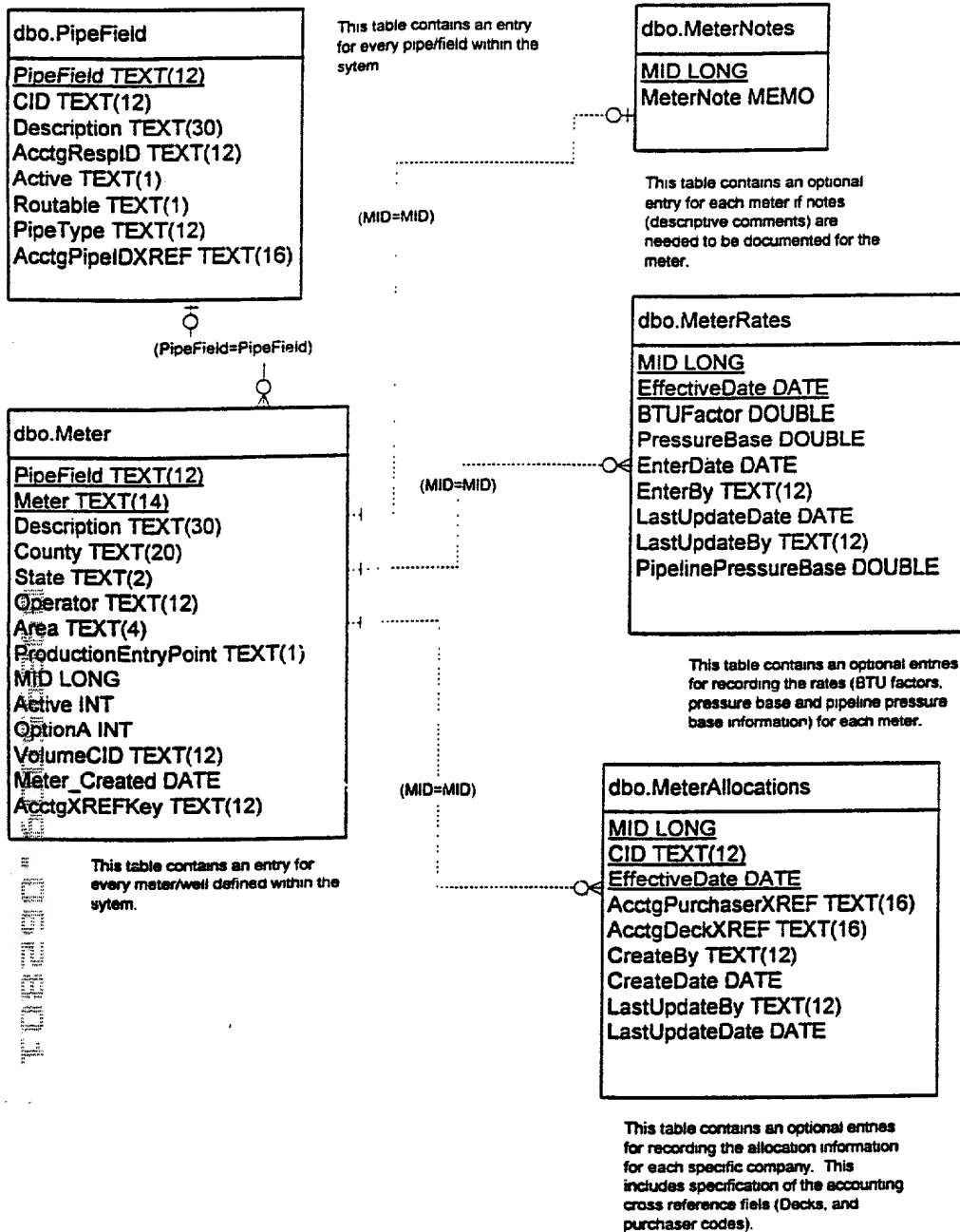


Fig. 3K

Pricing Subject Area (ERD)

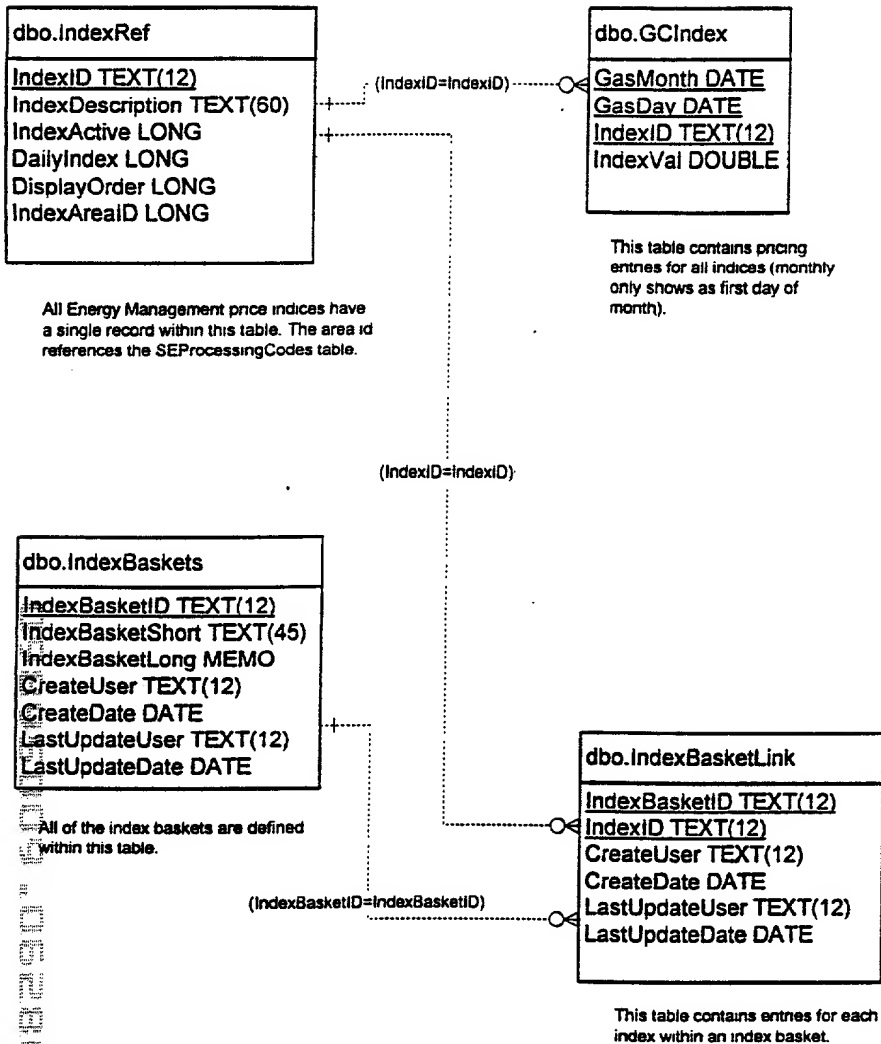


FIG. 3C

Routing Subject Area (ERD)

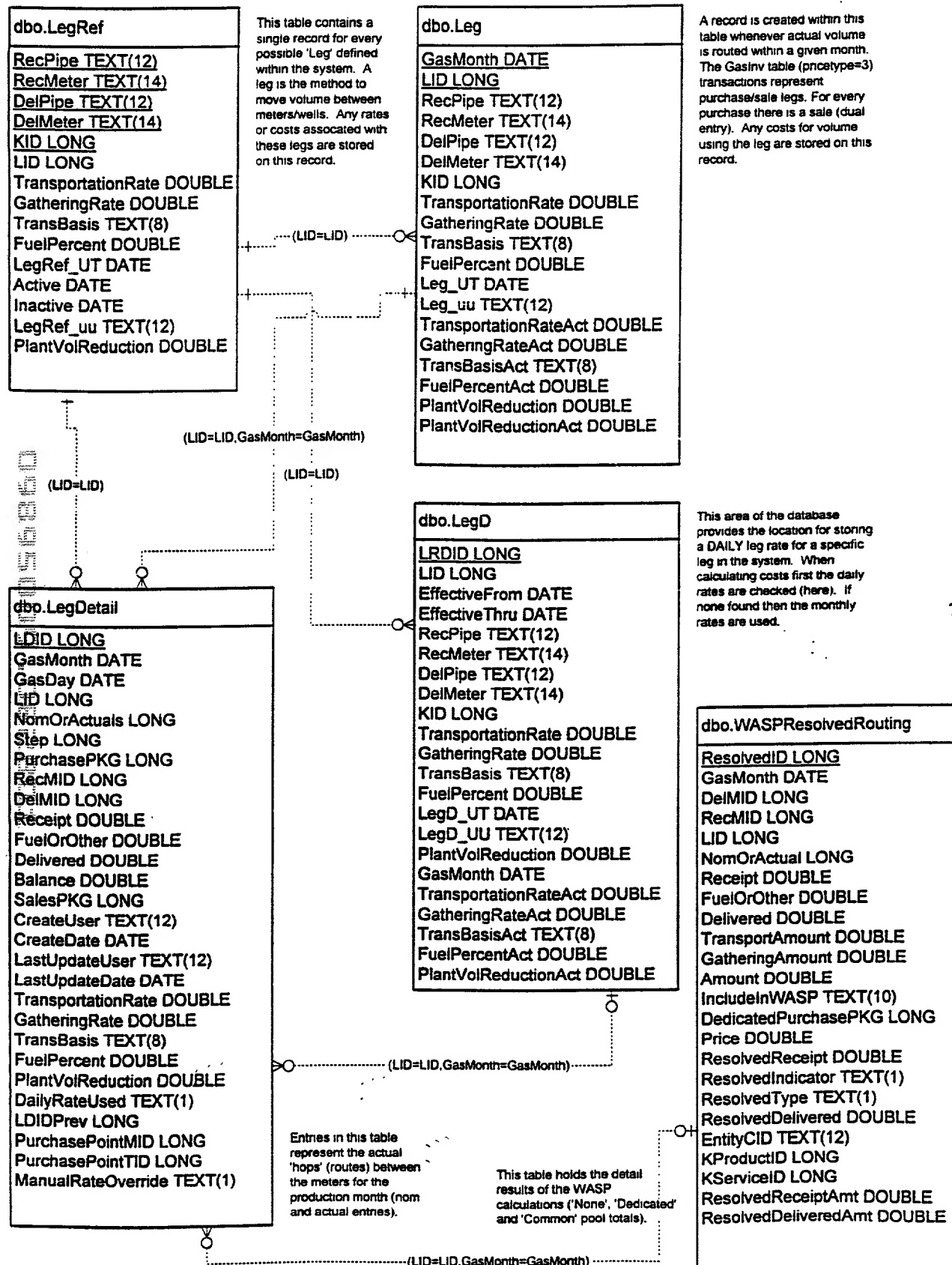


FIG. 3M

Security Subject Area (ERD)

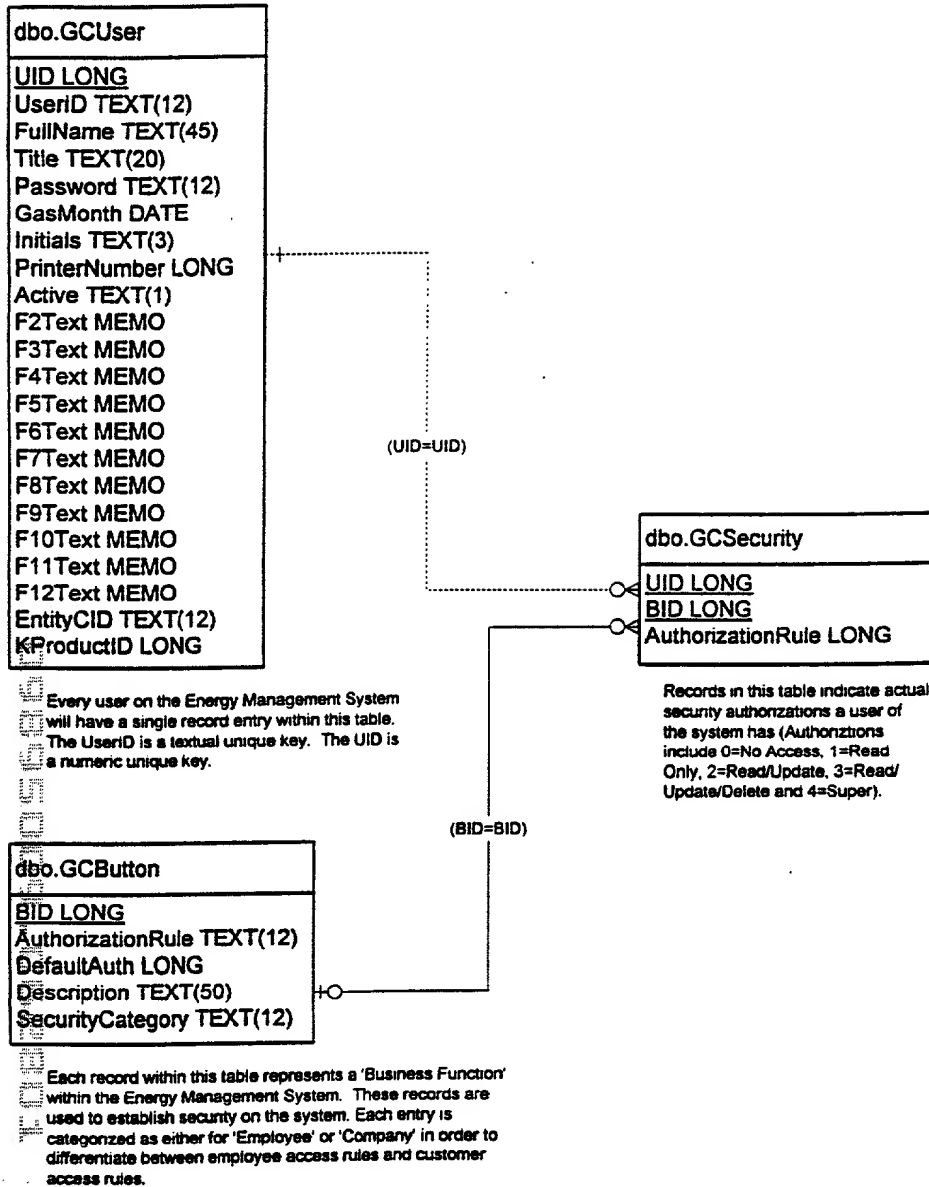


FIG. 3 N

708290" 60056860

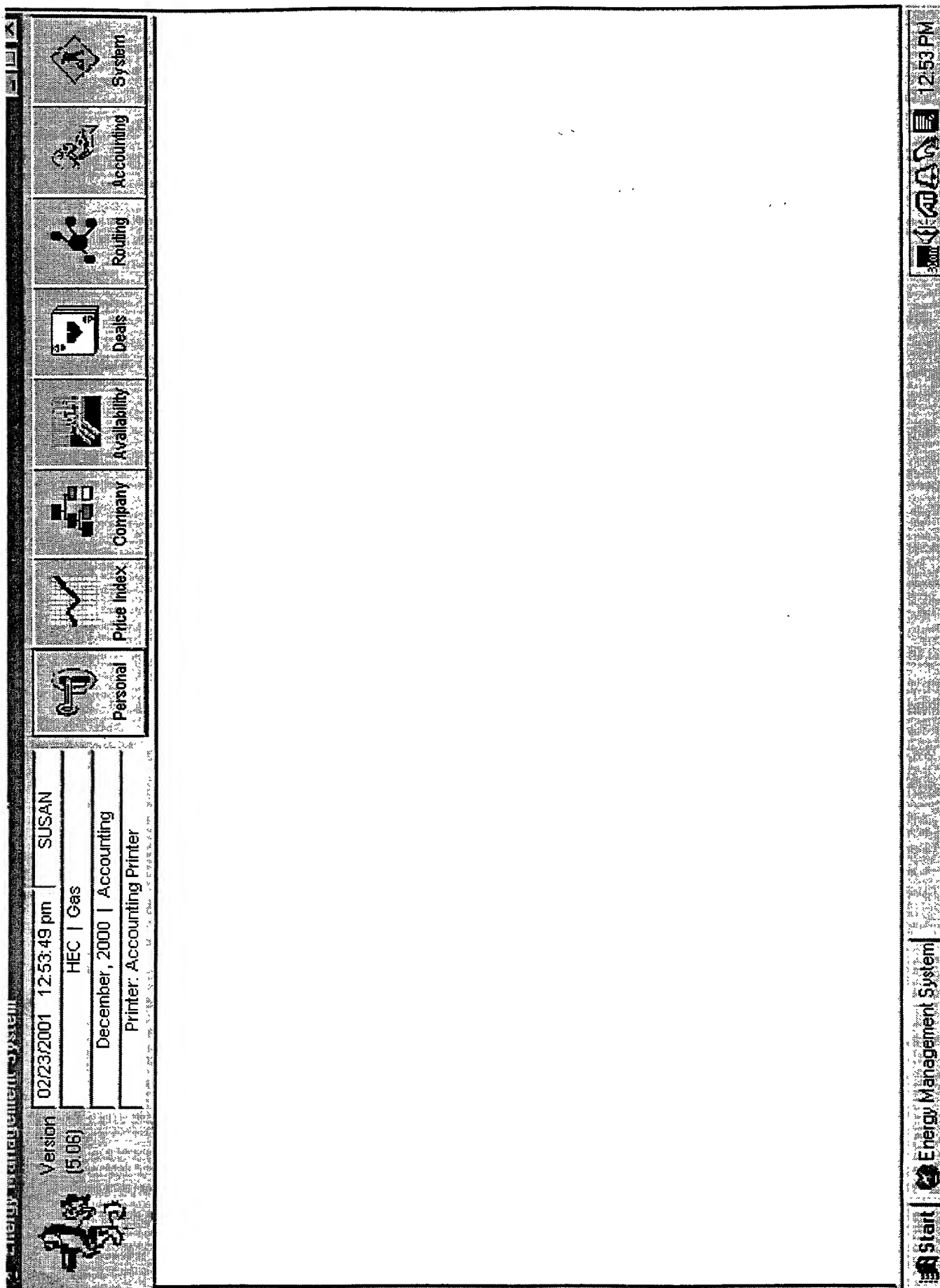


FIG. 4A

T08290" 60056860

Energy Management System

Version
(5.06)

02/23/2001 12:54:37 pm

SUSAN

HEC | Gas

December, 2000 | Accounting

Printer: Accounting Printer

System

Accounting

Routing

Deals

Availability

Company

Price Index

Personal

User Profile Detail - (Change)

General

F2 Key

F3 Key

F4 Key

F5 Key

F6 Key

F7 Key

F8 Key

F9 Key

ID:

SUSAN

Full Name:

Susan Sims

Title:

Dir. of Client Svcs

Password:

Month:

December / 2000

Entity:

HEC

Product:

Gas

☒ Active?

Initials:

SS

Printer Number:

Accounting Printer

Internal User ID:

2448

☒ OK

Help...

Cancel

Fig. 4B

FIG. 4C

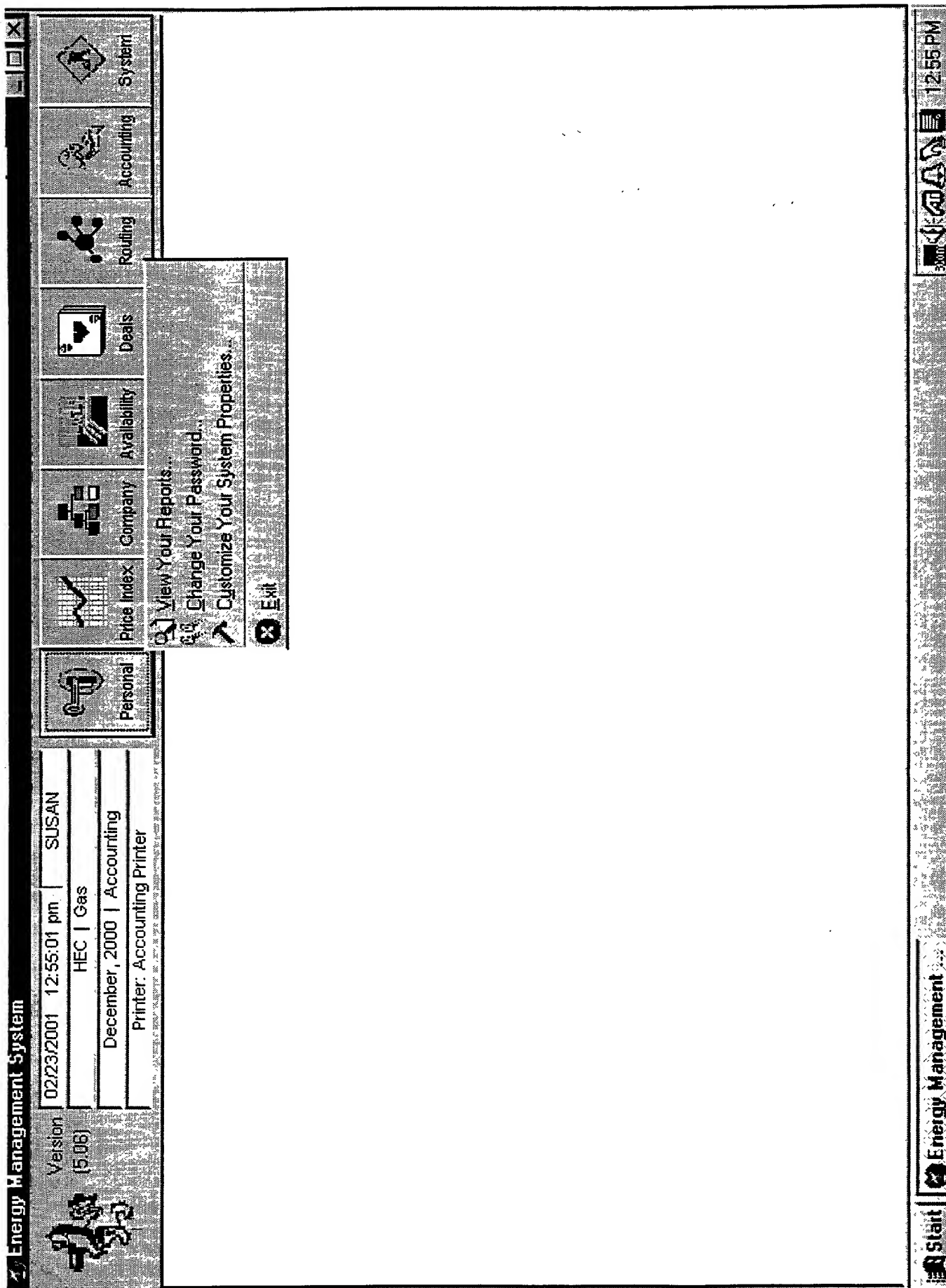


FIG. 4C

Report Viewer

Reports Submitted By You

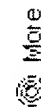
Reports Submitted by the Scheduler

Report Name	Submit Date	Completion Status	Rolloff Date	Output Format	Error Code
Purchase and Sales By Comp	02/23/2001 12:50:50 PM	Completed	03/02/2001 12:50:50 PM	Acrobat PI	0
Deals By Business Partner	02/23/2001 12:50:50 PM	Completed	03/02/2001 12:50:50 PM	Acrobat PI	0
Supply Volumes By Supplier	02/23/2001 10:36:56 AM	Completed	03/02/2001 10:36:56 AM	Acrobat PI	0
Actualization Progress	02/23/2001 10:02:18 AM	Completed	03/02/2001 10:02:18 AM	Acrobat PI	0
Vouchers (DRAFT)	02/20/2001 03:19:53 PM	Completed	02/27/2001 03:19:53 PM	Acrobat PI	0
Vouchers (DRAFT)	02/20/2001 03:19:28 PM	Completed	02/27/2001 03:19:28 PM	Acrobat PI	0
Margin Report (By WASP Pool)	02/19/2001 01:01:56 PM	Completed	02/26/2001 01:01:56 PM	Acrobat PI	0
Margin Report (By Pipe/Field)	02/19/2001 01:01:46 PM	Completed	02/26/2001 01:01:46 PM	Acrobat PI	0
Sales Deals By Pipe	02/19/2001 10:30:35 AM	Completed	02/26/2001 10:30:35 AM	Acrobat PI	0
Deals By Business Partner	02/17/2001 02:57:05 PM	Completed	02/24/2001 02:57:05 PM	Acrobat PI	0
Sales Deals By Pipe	02/17/2001 02:53:15 PM	Completed	02/24/2001 02:53:15 PM	Acrobat PI	0
Remittance DRAFT Detail	02/17/2001 02:52:40 PM	Completed	02/24/2001 02:52:40 PM	Acrobat PI	0
Actualization Progress	02/17/2001 01:13:53 PM	Completed	02/24/2001 01:13:53 PM	Acrobat PI	0
WASP Deal Detail	02/17/2001 12:32:46 PM	Completed	02/24/2001 12:32:46 PM	Acrobat PI	0
Routing Details (Ultimate Sales)	02/17/2001 12:25:32 PM	Completed	02/24/2001 12:25:32 PM	Acrobat PI	0
WASP Deal Detail	02/17/2001 11:38:21 AM	Completed	02/24/2001 11:38:21 AM	Acrobat PI	0
WASP Deal Detail	02/17/2001 11:38:11 AM	Completed	02/24/2001 11:38:11 AM	Acrobat PI	0
WASP Deal Detail	02/17/2001 11:28:50 AM	Completed	02/24/2001 11:28:50 AM	Acrobat PI	0

Records: 18



Refresh



More



Lookup...

☒ Auto Refresh ?

(this will refresh screen automatically every 10 seconds)

Submit Date (DESC)



View...



Print...



Email...



Export...



Delete...



Help...



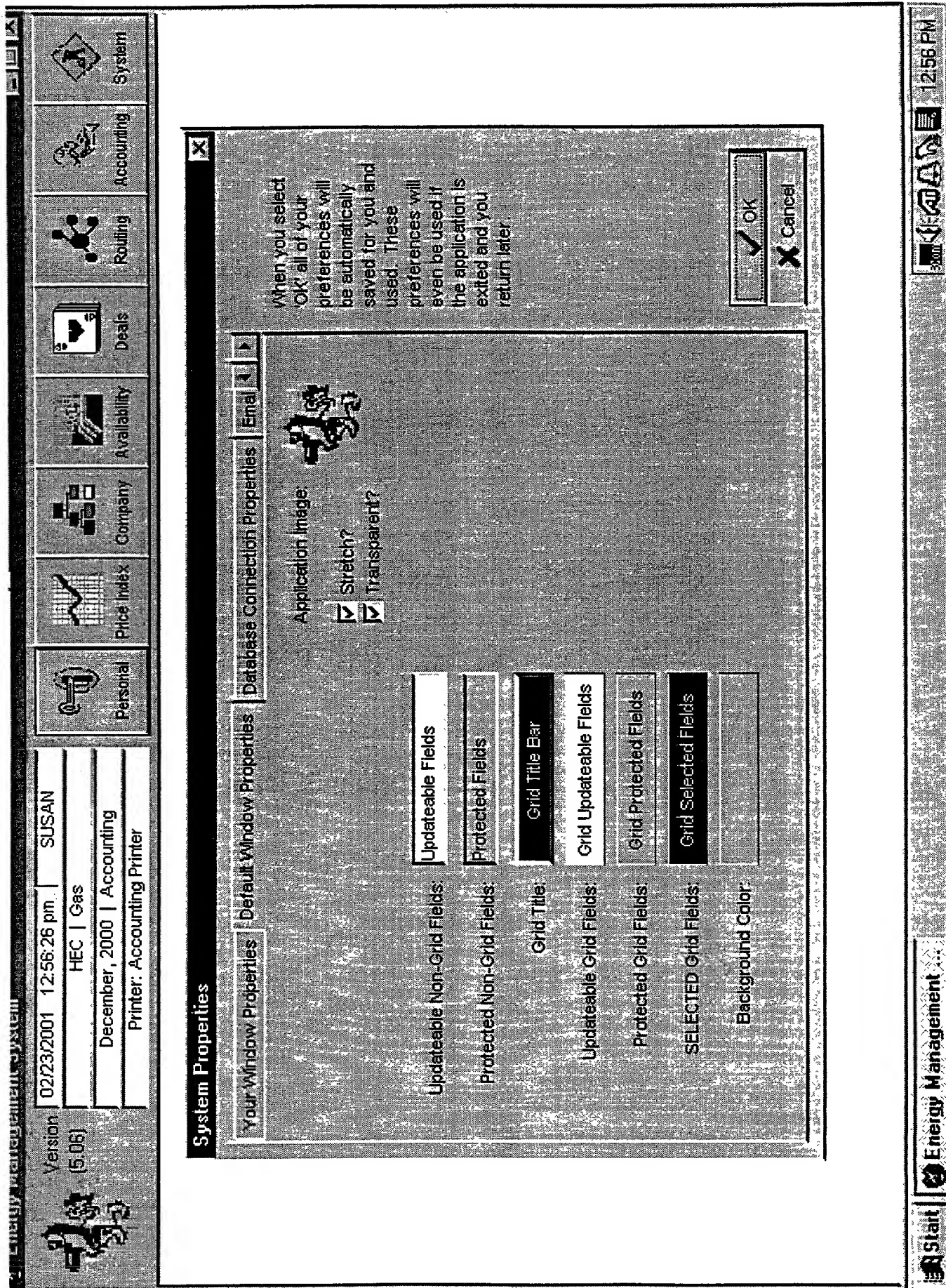
Exit




Energy Management ...




12:55 PM





Energy Management System



Version
(5.06)

02/23/2001


12:56:42 pm

HEC | Gas


December, 2000

Accounting


Printer: Accounting Printer




Personal




Price Index




Company




Availability




Deals




Routing




Accounting




System




Price Index




Enter or Update Daily/Monthly Prices...




View (Graph) Price Index Information...




Add or Update Index Areas...




Add or Update an Index...




Add or Update an Index Basket...




Add or Update Price Index Exceptions...




Price Index Reports...



Start



Energy Management



12:56 PM

FIG. 4F

Energy Management System

Version (5.06) 02/23/2001 12:57:28 pm SUSAN
HEC | Gas
December, 2000 | Accounting
Printer: Accounting Printer

System
Accounting
Routing
Deals
Availability
Company
Price Index
Personal

Daily Index Price Updates

You may change the price (if you have security privileges)

Display Order

Index	Name	Price
DGDEP(FB)1	Daily Gas Daily Midpoint El Paso Permian	\$6.2100
DGDNORTHERB	Daily Gas Daily Midpoint Northern Plains (1-6)	\$6.1550
DGDTXWYWAHA	Daily Gas Daily Midpoint Tex. Infrast. Wyna	
DGDTTRANSWMT	Daily Gas Daily Midpoint Transwestern Permian	\$6.2100
DGDCARTHAGE	Daily Gas Daily Midpoint Carthage Hub Valgate	\$6.1750
DGDKOCH-ETW	Daily Gas Daily Midpoint Koch (Zones) (82)	\$6.0000
DGDLSTX	Daily Gas Daily Midpoint Lone Star	\$6.0300
DGDMRT-ML	Daily Gas Daily Midpoint MRT Mainline	\$6.3150
DGDMRT-WL	Daily Gas Daily Midpoint MRT West Leg	\$6.2700
DGDNGPL-TXOK	Daily Gas Daily Midpoint NGPL TexOK (West)	\$6.2100
DGDNGPL-TXOK	Daily Gas Daily Midpoint NGPL TexOK (East)	\$6.2050
DGDTENN-100	Daily Gas Daily Midpoint Tennessee 100 Leg	\$6.1900

Records: 211 < LOOKUP > Friday - 12/01/2000

Weekend Copy!

? Help...

Exit

Prices By Month

Index Prices By Month

Sources: Inside F.E.R.C.'s 'Gas Market Report' and Financial Times Energy 'Gas Daily Report'.

Monthly index prices only contain price entries on the 1st day of the month and these prices are used throughout the month.

Month:

Area or Pipe/Field:

Index:

Day	Price
12/01/2000	\$6.2100
12/02/2000	\$6.3900
12/03/2000	\$6.4800
12/04/2000	\$6.4900
12/05/2000	\$7.2900
12/06/2000	\$8.1600
12/07/2000	\$9.3100
12/08/2000	\$9.0400
12/09/2000	\$7.9600
12/10/2000	\$7.9600
12/11/2000	\$7.9600
12/12/2000	\$10.5150
12/13/2000	\$8.9650
12/14/2000	\$7.3450
12/15/2000	\$7.3650

Average 8.7053

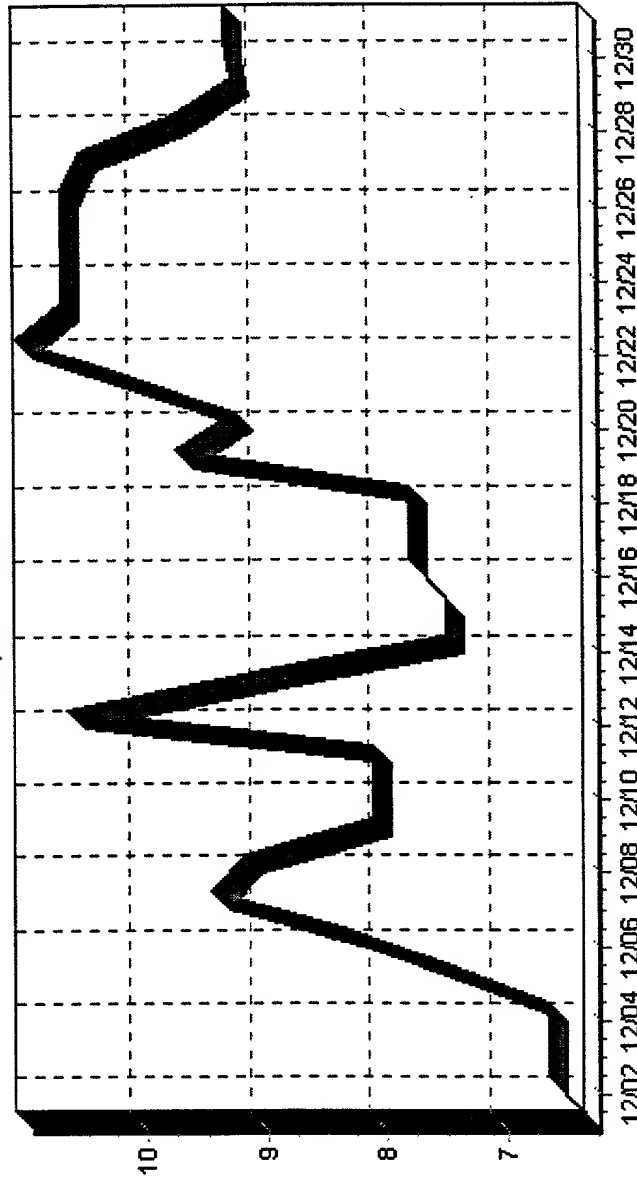
Navigation icons: back, forward, first, last, etc.

Refresh More


Day

OK Cancel

Graphical View



02/23/2001 12:58:58 pm



Version
(5.06)

02/23/2001 12:58:58 pm

HEC | Gas

December, 2000 | Accounting

Printer: Accounting Printer

Personal

Price Index

Company

Availability

Deals

Routing

Accounting

System


Enter Production Volumes...

Produce Production Confirms...

Availability Reports...

Start

Energy Management

 12:58 PM

Version	02/23/2001	01:01:10 pm	SUSAN
15 05	HEC Gas		

December, 2000 | Accounting

Deal Details - [Change]


Deal ID:	66028	Description:	12/23-31 3TEC
Product:	Gas	Service:	Marketing
Month:	December / 2000	Status:	(Accounting Phase)
Contract...	3TEC Energy Corporation	Start Date:	12/23/2000
	3TEC OIL & GAS PURCHASE	Thru Date:	12/31/2000
		Status:	Created
			Confirm Report

All information relevant to this particular deal is shown on this screen. You have the option of directly changing this information (dependent on status of the month).

✓ OK ? Help... ✕ Cancel

Rollover Rules General Correspondence Prices Ownership Interests Financial Overrides Calculation Results Audit Information	Our Contact... Their Contact... Description: Comments: Due:	Janna Calhoun , 713-821-7107 Leslie Vandagriff , 214-954-1430 lvandagriff@highlandenergy.com \$5.89* MANUAL NB .99	Classifications Deal Type: 3rd Party Vol. Volatility: Baseload Price Period: Spot Interruptible: IT	<input type="checkbox"/> Accounting Use Only ? (ie. No Invoices or Remittance Reports) <input type="checkbox"/> Suppress Volume Calculations ? <input type="checkbox"/> Park or Loan Deal ?
-------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

T08290" 60056860



Energy Management System

Version
(5.06)


02/23/2001 12:59:49 pm


HEC | Gas


SUSAN


December, 2000 | Accounting


Printer: Accounting Printer


Personal


Price Index


Company

Availability

Deals

Routing

Accounting

System

Route Volume...

Define Legs...

Leg History (Monthly Rates)...

Leg Daily Rates...

Pipes/Fields...


Meters/Wells...


Routing Reports...


Preferences

Propagate to End of Month ?

☒ Auto Adjust Changes ?

Start

Energy Management ...



12:58 PM

Feb. 4M

108290" 6056860

Energy Management System

Route Volume

December 2000

Sun

Mon

Tue

Wed

Thu

Fri

Sat

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

Today: 02/23/2001

CGT - Columbia Gulf Transmission

Pipe/Fld...

Which Volumes ?
☒ Nominations
☐ Actuals

☐ Show Outstanding Balances Only ?
Month Status: Accounting

Receipt Side Order
Meter/Well

Right click any of the lists below to see other options.

CGT

21

Receipts

Area	Meter/Well	Desc.	Hop	Received	Balance
4012		PARADISE (ERACELAND)	0	1,989.00	0.00
4039		VALENTINE	0	1,989.00	0.00
4164		VM267A	0	495.00	0.00
4164		VM267A	0	15,778.00	0.00
474		CENTERVILLE	2	99.00	0.00
481		SEA ROBIN	3	2,079.00	0.00
492		GARDEN CITY PLANT	2	6,000.00	0.00
492		GARDEN CITY PLANT	2	700.00	0.00
22046107		Highland Mainline Pool	0	0.00	0.00
22046107		Highland Mainline Pool	1	1,989.00	0.00
23046107		HIGHLAND ONSHORE POC	0	0.00	0.00
23046107		HIGHLAND ONSHORE POC	0	0.00	0.00

2

Posted Delivery Point(s)

Pipe/Fld...	Area	Meter/Well	Desc.	Hop	Origin	Delivered
CGT		P2046107	Highland Mainline	2	Sales P	219.00

0

Available Transport Pool/Tank Point(s)

Pipe...	Area	Meter/Well	Desc.	Contract	F-Perc.	T-Rate
---------	------	------------	-------	----------	---------	--------

7

Available Sale Point(s)

Pipe...	Area	Meter/Well	Desc.	Balance	Delivered	S-Com
CGT		P2046107	Highland	0.00	219.00	HEC

Station

Energy Management

1:22 PM

FIG. 4N

Month:

Type:

(Accounting Phase)

Lookup By ?

☐ Pipe ☐ Company

Volume Allocation

MMBTU MCF	Auto Allocate Volume Use Volume Entered	
Vol: 0	Fcbr: 1,000,000	
From: 1	Thrd: 31	
Post 1	Post Prop 1	Match Items

Columbia Gulf Transmission

Meter/Well	Description	Deal	Act. ?	Actuals	Company
P2048 107	FLANK OFFSHORE	65406	✓	3,145.00	HEC
P0038	VALENTINE	65320	✓	1,211.00	IRONWORK
P164	MM267A	65050	✓	4,083.00	CHEPPAIN
P164	MM267A	65370	✓	392,909.00	CHEPPAIN
P2048 107	Highland Mainline Pool	64872	✓	534.00	HEC
P3048 107	HIGHLAND ONSHORE	64872	✓	0.00	HEC
P2048 107	HIGHLAND ONSHORE	65028	✓	0.00	HEC
P3046 107	HIGHLAND ONSHORE	65753	✓	30,000.00	AGUILAENER
P3048 107	HIGHLAND ONSHORE	65754	✓	3,090.00	AGUILAENER

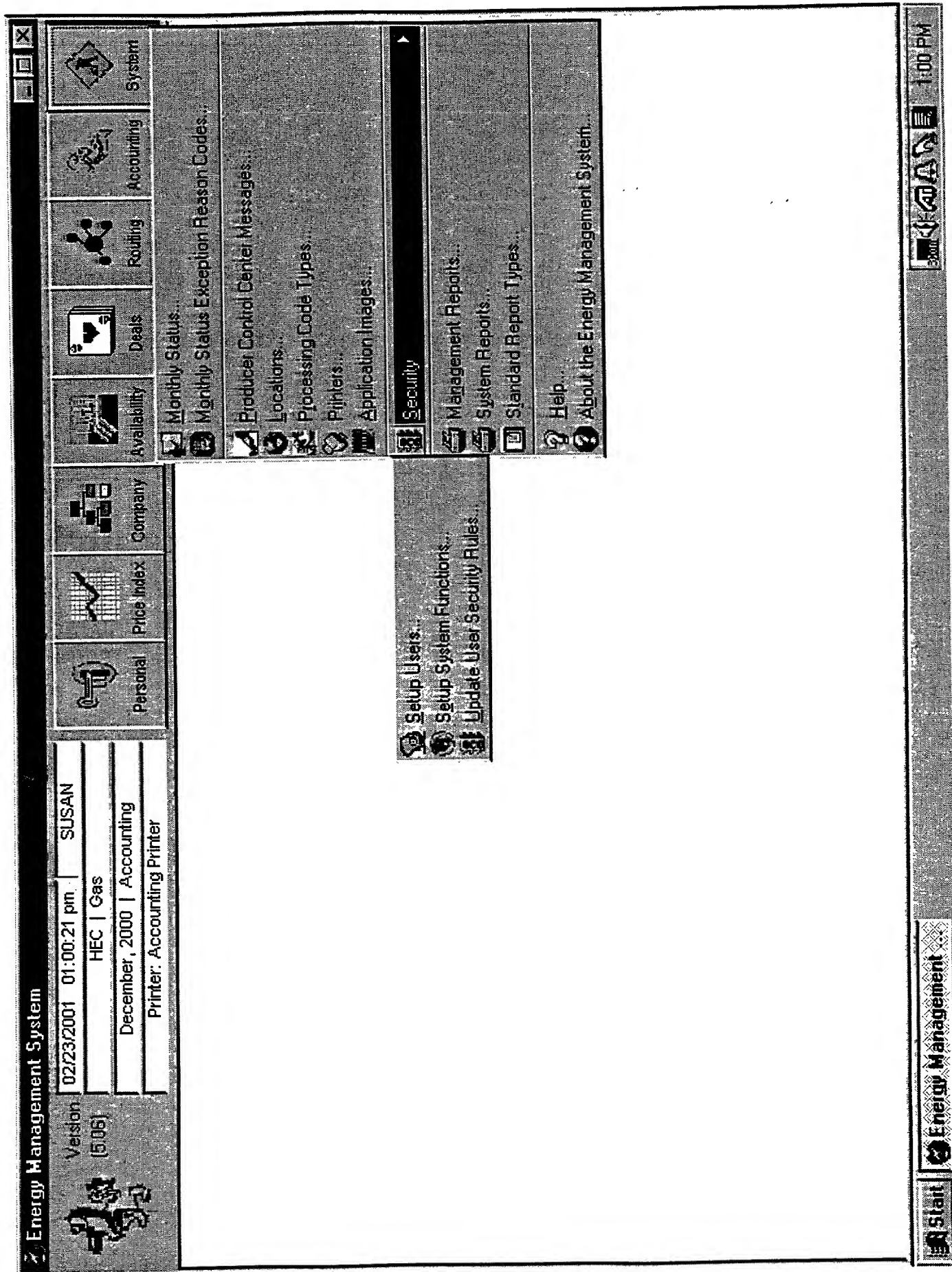
Day	Mon	Actual
Dec 01	1,937.00	1,937.00
Dec 02	1,937.00	1,937.00
Dec 03	1,937.00	1,937.00
Dec 04	1,937.00	1,937.00
Dec 05	1,937.00	1,937.00
Dec 06	1,937.00	1,937.00
Dec 07	1,937.00	1,937.00
Dec 08	1,937.00	1,937.00
Dec 09	1,937.00	1,937.00
Dec 10	1,937.00	1,937.00
Dec 11	1,937.00	1,937.00
Dec 12	1,937.00	1,937.00
Dec 13	1,937.00	1,937.00
Dec 14	1,937.00	1,937.00
Dec 15	1,937.00	1,937.00
Dec 16	1,937.00	1,937.00
Dec 17	1,937.00	1,937.00
Dec 18	1,937.00	1,937.00
Dec 19	1,937.00	1,937.00
Dec 20	1,937.00	1,937.00
Dec 21	1,937.00	1,937.00
Dec 22	1,937.00	1,937.00
Dec 23	1,937.00	1,937.00
Dec 24	1,937.00	1,937.00
Dec 25	1,937.00	1,937.00
Dec 26	1,937.00	1,937.00
Dec 27	1,937.00	1,937.00
Dec 28	1,937.00	1,937.00

You have the option of either entering the daily actual volumes directly next to their respective day (right side list) OR to use the volume allocation panel (right center of the window).

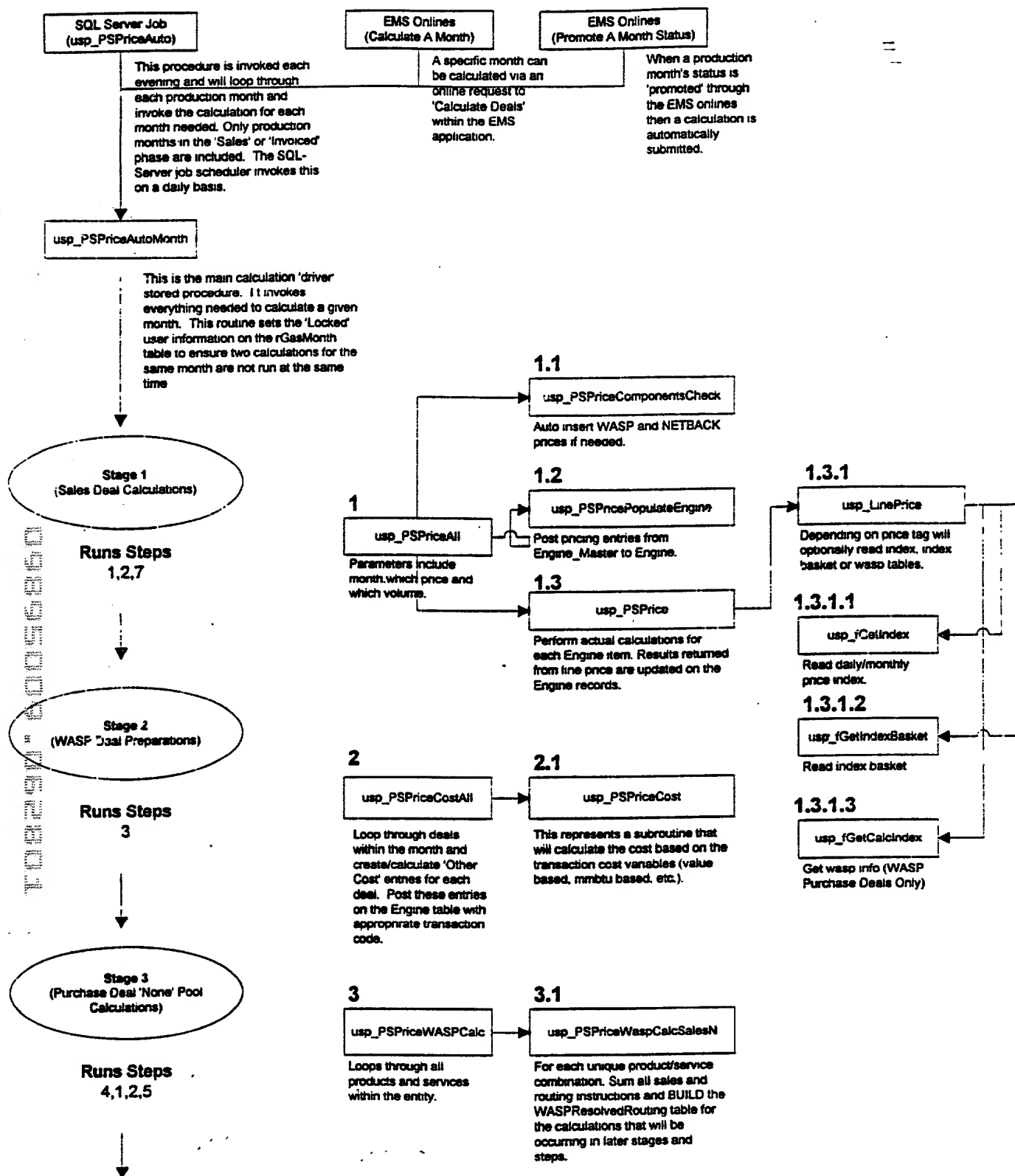
Pipe/Field and meter/well actual totals at bottom should match your

Right click the meter well grid to see other options.

T03290" 60056860



WASP Calculation Diagram (1 of 2)



continued on next page

FIG. 5A